CLAIMS

What is claimed is:

1. An apparatus comprising:

a mixer coupled to an external audio source to receive an external audio signal;

the mixer coupled to an ambient audio source to receive an ambient audio signal;

the mixer to mix the external audio signal and the ambient audio signal according to a specified relationship; and

a speaker coupled to the mixer to emit the external audio signal and the ambient audio signal into an ear canal of a user after the external audio signal and the ambient audio signal have been mixed by the mixer.

2. The apparatus of claim 1, wherein the ambient audio source, the mixer, and the speaker are an integrated assembly.

3. The apparatus of claim 1, further comprising a blocker coupled to the speaker to prevent entrance of the ambient audio signal that has not been mixed by the mixer from entering the ear canal of the user.

4. The apparatus of claim 1, further comprising a user audio preference interface (UAPI) coupled to the mixer to receive an audio preference from the user, the audio preference being used to determine the specified relationship.

5. The apparatus of claim 1, further comprising a noise filter coupled to the ambient audio source to filter noise from the ambient audio signal.

6. The apparatus of claim 1, further comprising a hearing compensator coupled to the mixer to compensate for a hearing defect of the user.

7. The apparatus of claim 1, the mixer further comprises a digital signal processor (DSP) to process the ambient audio signal and the external audio signal digitally.

8. The apparatus of claim 1, wherein the external audio source is selected from the group consisting of:

a telephone;

an audio playing device; and

a personal electronic device.

9. The apparatus of claim 1, wherein the ambient audio source is a microphone to capture ambient sound.

10. The apparatus of claim 1, further comprising a second microphone coupled to the external audio source for transmitting an outgoing audio signal from the user to the external audio source.

11. A method comprising:

receiving an external audio signal from an external audio source;

receiving an ambient audio signal;

mixing the external audio signal and the ambient audio signal according to a specified relationship; and

emitting the external audio signal and the ambient audio signal into an ear canal of a user after the external audio signal and the ambient audio signal have been mixed according to the specified relationship.

12. The method of claim 11, further comprising blocking entrance to the ear canal of the user by the ambient audio signal that has not been mixed according to the specified relationship.

13. The method of claim 11, wherein the specified relationship is predetermined by a preference input by the user.

14. The method of claim 11, further comprising filtering noise from the ambient audio signal.

15. The method of claim 14, wherein the filtering is performed according to a preference input by the user.

16. The method of claim 11, further comprising compensating for a hearing defect of the user.

17. The method of claim 16, wherein the compensating is performed according to a preference input by the user.

18. The method of claim 16, wherein the compensating is performed according to a preference input by a medical professional.

19. The method of claim 11, further comprising transmitting an outgoing audio signal from the user to the external audio source.

20. A system comprising:

an ambient-aware headset to receive an external audio signal from an external audio source, receive an ambient audio signal from an ambient audio source, mix the external audio signal and the ambient audio signal according to a specified relationship, and emit the external audio signal and the ambient audio signal into an ear canal of a user after the external audio signal and the ambient audio signal have been mixed according to the specified relationship; and

the external audio source communicatively coupled to the headset to receive the external audio signal from a communication apparatus and to provide the external audio signal to the headset.

21. The system of claim 20, further comprising a microphone communicatively coupled to the external audio source and the headset to transmit an outgoing audio signal from the user to the external audio source, the external audio source communicating the outgoing audio signal to the communication apparatus.

22. The system of claim 20, further comprising a user interface terminal communicatively coupled to the communication apparatus and the headset to store audio data and to relay the audio data between the communication apparatus and the headset.

23. A system comprising:

a processing unit:

a memory coupled to the processing unit through a bus; and

an ambient-aware headset interface process executed from the memory by the processing unit to receive an audio data signal from a communication apparatus and to provide the audio data signal to an ambient-aware headset; the headset receiving the audio data signal, receiving an ambient audio signal, mixing the audio data signal and the ambient audio signal according to a specified relationship, and emitting the audio data signal and the ambient audio signal into an ear canal of a user after the audio data signal and the ambient audio signal have been mixed according to the specified relationship

24. The system of claim 23, wherein the communication apparatus is selected from the group comprising:

a wireless telephone signal transmission tower; and

a wireless audio data signal transmission tower.

25. The system of claim 23, further comprising a microphone communicatively coupled to the headset to transmit an outgoing audio signal from the user to the communication device.

26. A machine-readable medium having stored thereon a plurality of instructions, which if executed by a machine, cause the machine to perform a method comprising:

receiving an external audio signal from an external audio source;

receiving an ambient audio signal;

mixing the external audio signal and the ambient audio signal according to a specified relationship; and

emitting the external audio signal and the ambient audio signal into an ear canal of a user after the external audio signal and the ambient audio signal have been mixed according to the specified relationship.

27. The machine-readable medium of claim 26, wherein the method further comprises blocking entrance to the ear canal of the user by the ambient audio signal that has not been mixed according to the specified relationship.

28. The machine-readable medium of claim 26, wherein the method further comprises at least one of the group consisting of:

filtering noise from the ambient audio signal; and

compensating for a hearing defect of the user.

29. The machine-readable medium of claim 26, wherein the specified relationship is predefined by the user.